

PS-8503 00

1L-0408-17

HYDROPOLL, Inc.

Suite B, 731 S. Durkin Drive
Springfield, Illinois 62704

Phone (217) 793-1361

ASSESSMENT OF QUARTERLY
COLLECTED GROUNDWATER SAMPLES
RCRA IMPOUNDMENT
CABOT CORPORATION PLANT
TUSCOLA, ILLINOIS
(U.S. EPA I.D. No. ILD042075333)

Date: February 1985

Prepared by: Rauf Piskin, Ph.D., C.P.G.

EPA Region 5 Records Ctr.



298897

RECEIVED

MAR 01 1985

EPA-DLPC

TABLE OF CONTENTS

	Page
INTRODUCTION	1
Monitoring system	2
Hazardous Waste Constituents	2
Parameters Analyzed and Assessment Methods	2
ASSESSMENT	4
Potentiometric Levels, Flow Direction and Hydraulic Gradient	4
Hazardous Waste Constituents	6
Rate and Extent of Migration of Hazardous Waste Constituents	8
<u>Groundwater Velocity and Extent of Contamination in Horizontal Direction</u>	8
<u>Groundwater Velocity in Vertical Direction</u>	10
<u>Rate of Discharge from the Impoundment</u>	12
<u>Rate of Discharge at the Property Boundary</u>	13
CONCLUSIONS	14
RECOMMENDATIONS	15
LIST OF REFERENCES	16
APPENDIX	
Monitoring Data	17

LIST OF FIGURES

	Page	
1. A map showing potentiometric levels, based on January 14, 1985 water level elevations, and approximate location of contamination front, Cabot Corporation plant, Tuscola, Illinois. Contour interval is one ft and elevations are above msl.		In Pocket

LIST OF TABLES

1. Depth to and elevation of water levels in all monitoring wells at the Cabot Plant	5
2. Concentrations of hazardous waste constituents in the groundwater samples collected from the monitoring wells on 1/14/85, Cabot Corporation plant, Tuscola, Illinois	7

ASSESSMENT OF QUARTERLY COLLECTED
GROUNDWATER SAMPLES

INTRODUCTION

This report is the quarterly assessment of groundwater quality for the hazardous waste impoundment at the Cabot Corporation plant near Tuscola, Illinois. The report has been prepared to satisfy the requirements of Section 725. 193(d)(5), Subpart F: Groundwater Monitoring (IPCB, 1984).

Groundwater quality assessment reports are to be prepared as indicated in "Groundwater Quality Assessment Program at Cabot Corporation Plant, Tuscola, Illinois", as amended (Hydropoll, 1984a). The assessment program had been prepared to satisfy the requirements of Section 725. 193(d)(2) and submitted to IEPA in February 1984. In the supplements to the assessment program, the hazardous waste constituents to be analyzed were identified, the number of wells in the monitoring system were modified, and a new schedule of sampling and analysis was established. These modifications were approved by the IEPA. Previous to this quarterly report, an annual assessment report was submitted to the IEPA in January 1985.

The purpose of this report is to assess the rate and extent of migration and the concentration of hazardous waste constituents in the groundwater beneath the plant property in vertical and horizontal directions based on the quarterly sampling.

Monitoring System

As approved by the IEPA, nine wells out of thirteen make up the monitoring system for the impoundment at the Cabot plant (Figure 1, in pocket). Of these, MW-1 (G101) is the upgradient well and the rest are downgradient. MW-9 (G109) and MW-13 (G113) are the deep monitoring wells which are installed to assess vertical migration of hazardous waste constituents.

Hazardous Waste Constituents

"Groundwater Quality Assessment Program", as amended, Hydropoll, 1984a) requires that four hazardous waste constituents are to be identified in the groundwater samples from the monitoring wells in the plant property. These constituents are:

Bis (2-Ethyl-Hexyl) Phthalate

Carbon Tetrachloride

Tetrachloroethylene

Methylene Chloride

In addition, any constituents that were measured above their detection limits in the analyses are reported, too.

Parameters Analyzed and Assessment Methods

Prior to collecting water samples, depth to water was measured and water level elevations were determined in all monitoring wells at the plant (Table 1). The quarterly samples were collected from the nine monitoring wells on January 14, 1985. These samples were

analyzed for the hazardous waste constituents. The results of the analysis are in the Appendix, which are also summarized in Table 2. Eight parameters were identified in the samples as shown in Table 2.

Comparisons of the analysis results from the downgradient wells with those from the upgradient well will be made to determine whether the hazardous waste constituents have entered groundwater from the impoundment. The chemical analysis results and velocity calculations based on a modified Darcy's formula will be utilized to estimate the extent of migration of the hazardous waste constituents. The rate of groundwater flow from the impoundment and at the eastern property of the plant property will be estimated from the Darcy's formula.

ASSESSMENT

Potentiometric Levels, Flow Direction and Hydraulic Gradient

When the quarterly groundwater samples were collected, the elevation of groundwater was determined in all the monitoring wells (Table 1). Based on the elevations taken from the shallow wells, a potentiometric map has been prepared (Figure 1) and the direction of regional groundwater flow has been estimated from elevations in MW-1 (G101), MW-10 (G110) and MW-11 (G111). The regional flow direction is towards southeast and the hydraulic gradient is 0.008 (6 ft/775 ft) in the unaffected areas. This flow direction and the hydraulic gradient are reasonably in agreement with those determined previously.

Figure 1 indicates that a groundwater mound has formed beneath the impoundment. The mound has been created due to migration of waste fluid from the impoundment. Migration of waste fluid has changed groundwater elevations, general flow direction and the hydraulic gradient near the impoundment. From Figure 1, it is estimated that the distortion of groundwater contours occurred to a distance of 250 ft in the regional flow direction from the impoundment. The hydraulic gradient averages 0.025 (7 ft/275 ft) in this affected area. This is also reasonably comparable with those determined in the previous assessment reports.

Table 1. Depth to and elevation of water levels
in all monitoring wells at the Cabot
Plant

WELL NUMBER	Ground Elevation, Ft	MEASUREMENT			Level difference in paired wells, Ft
		Depth to water, Ft	Elevation* of water level, Ft	Date	
(MW-1) G101	693.44	2.50	690.94	1/14/85	18.67
MW-2	690.68	2.33	688.35	1/14/85	
MW-3	690.87	3.38	687.49	1/14/85	
MW-4	686.90	3.42	683.48	1/14/85	
MW-5	694.04	4.98	689.06	1/14/85	
(MW-6) G106	691.84	2.92	688.92	1/14/85	18.67
(MW-9) G109	691.59	21.34	670.25	1/14/85	
(MW-7) G107	690.60	4.33	686.27	1/14/85	
(MW-8) G108	691.14	3.75	687.39	1/14/85	
(MW-10) G110	689.66	2.50	687.16	1/14/85	
(MW-13) G113	689.05	9.13	679.92	1/14/85	7.24
(MW-11) G111	686.64	3.41	683.23	1/14/85	
(MW-12) G112	690.97	3.41	687.56	1/14/85	

* Elevation is above MSL

Hazardous Waste Constituents

Review of the analysis results in Table 2 indicates that eight hazardous waste constituents were measurable and have entered groundwater. The identified parameters were below their respective detection limits in the upgradient well (G101), in the deepwells (G109, G113) and the shallow wells (G110, G111, G112) near the eastern boundary of the plant. Bis (2-Ethyl hexyl) phthalate was below its detection limit in all nine wells. The remaining seven parameters were measurable in the immediate downgradient wells (G106, G107 and G108) from the impoundment. Of these wells, G107 seems to be the least contaminated. The results indicate that the hazardous waste constituents have primarily migrated from the impoundment and entered shallow groundwater. No hazardous waste constituent was identified in two relatively deep wells (G109 and G113).

The concentrations of the hazardous waste constituents were relatively low, in ppb level, in the downgradient wells; except, tetrachloroethylene was 51 mg/l in G106. The analysis results in Table 2 are different than those in the annual report, January 1985 (Hydropoll, 1984b). Carbon tetra chloride decreased to <1 ppb in G107, G110, G111, and G112, while it increased in G108. Methylene chloride increased in G106 and decreased to <1 ppb in G108. Tetrachloroethylene increased in G106, G107, and G108, and it decreased to <1 ppb in G110, G111, and G112.

Table 2. Concentrations of hazardous waste constituents in the groundwater samples collected from the monitoring wells on 1/14/85, Cabot Corporation plant, Tuscola, Illinois

	<u>GL01</u>	<u>GL06</u>	<u>GL07</u>	<u>GL08</u>	<u>GL09</u>	<u>GL10</u>	<u>GL11</u>	<u>GL12</u>	<u>GL13</u>
Carbon tetra chloride µg/l	<1	16	<1	760	<1	<1	<1	<1	<1
Methylene chloride µg/l	<1	30	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethylene µg/l	<1	51,000	330	800	<1	<1	<1	<1	<1
Bis (2-Ethyl hexyl) phthalate µg/l	<10	<10	<10	<10	<10	<10	<10	<10	<10
Toluene	<1	200	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	30	<1	126	<1	<1	<1	<1	<1
Di n octyl phthalate	<10	<10	<10	22	<10	<10	<10	<10	<10
*Trichloroethane	<1	11	<1	<1	<1	<1	<1	<1	<1

* It was not present in the previous quarterly analyses

Toluene, trichloroethane and di n octyl phthalate were the only measurable parameters in G106 and G108, respectively. Chloroform concentration increased in G106, decreased in G108, and became <1 ppb in G107.

The above differences in the immediate downgradient wells would result from seasonal differences, changes of waste concentrations in the impoundment in the past, change in discharge rate from the impoundment, and/or sampling and laboratory errors.

Rate and Extent of Migration of Hazardous Waste Constituents

Although the analyses in Table 2 do not indicate the extent of groundwater contamination (or location of the contamination front), a review of them in conjunction with the monitoring well location (Figure 1) shows that the shallow groundwater contamination occurred primarily near the impoundment in the downgradient direction. The groundwater along the northern half of the eastern boundary of the plant has not been contaminated. Likewise, relatively deep groundwater has not been contaminated either.

Groundwater Velocity and Extent of Contamination in Horizontal Direction

The horizontal component of the velocity of the groundwater flow through the glacial till (silty clay) can be estimated using a modified version of the Darcy's equation as follows:

$$V_H = K \frac{dh}{dl} \frac{1}{n} \quad , \text{ where}$$

$$V_H = \text{Velocity} \quad , \text{ ft/yr}$$

$$*K_F = \text{Field hydraulic conductivity}$$

$$= 6 \times 10^5 \text{ cm/sec (62.1 ft/yr), (reported previously)}$$

$$\frac{dh}{dl} = \text{Hydraulic gradient,}$$

$$n = \text{Effective porosity (assumed 0.05)}$$

The hydraulic gradient in an area unaffected by the impoundment was estimated as 0.008 from Figure 1. Thus, the groundwater velocity is calculated from the above equation as 9.9 ft/yr in this area using K_F .

From a perspective of migration of contaminant, the most important part of the impoundment to consider is the part of the plant property immediately downgradient from the eastern berm of the impoundment. The hydraulic gradient averages 0.025 in the distorted (affected) area. Using the same equation above, the average velocity is calculated as 31 ft/yr. That means it would take eight years for a drop of fluid to travel from the impoundment to a point 250 ft away in the regional flow direction. The impoundment has been there for 18 years, since 1966, and a fluid drop from the impoundment would travel a 250 ft distance in eight

* The calculations below were made using only field hydraulic conductivity. If the laboratory hydraulic conductivity was used, results would have been about four order of magnitude smaller.

years; thus, there is a time period of ten years to travel beyond the 250 ft distance from the eastern side of the impoundment in the unaffected area. Because the velocity of groundwater is calculated as 9.9 ft/yr in the unaffected area, a drop of fluid from the impoundment would travel 99 ft in ten years beyond the affected area.

Thus, it seems that the fluid that migrated from the impoundment in 1966 would travel approximately a distance of 350 ft in the regional flow direction. The potentiometric surface map in Figure 1 suggests that the travel distance would be shorter than the calculated 350 ft in other directions. Based on the 350 ft distance, approximate location of the contamination front in the flow direction is shown in Figure 1.

In the calculation of 350 ft, it is assumed that there is no other potential contamination sources. However, a small landfill and leachfield exist east of the impoundment approximately 200 ft and 550 ft away, respectively. Any fluid contribution from these sources would affect the flow direction and the calculated distance.

Groundwater Velocity in Vertical Direction

The water elevation data in Table 1 for two pairs of monitoring wells (MW-6/MW-9 and MW-10/MW-13) indicate that the groundwater beneath the plant property migrates downward.

The vertical component of the groundwater velocity was estimated

by using a modified Darcy's equation and data from these wells. It is assumed that K is constant in horizontal and vertical directions. The modified equation is:

$$V_V = K \frac{dh}{dl} \frac{1}{n} \quad \text{where,}$$

$$\frac{dh}{dl} = 0.900 \quad \text{for the MW-6/MW-9 pair, and}$$

$$\frac{dh}{dl} = 0.206 \quad \text{for the MW-10/MW-13 pair.}$$

(Other terms expressed before)

Using K_F , V_V would be:

$$V_V = 62.1 \text{ ft/yr} \times 0.900 \times \frac{1}{0.05} = 1118 \text{ ft/yr at MW6/MW-9, and}$$

$$V_V = 62.1 \text{ ft/yr} \times 0.206 \times \frac{1}{0.05} = 256 \text{ ft/yr at MW-10/MW-13.}$$

If K_L , laboratory measured hydraulic conductivity, (8.3×10^{-9} cm/sec or 8.6×10^{-3} ft/yr), is used, V_V would be:

$$V_V = 8.6 \times 10^{-3} \text{ ft/yr} \times 0.900 \times \frac{1}{0.05} = 0.15 \text{ ft/yr at MW-6/MW-9 and,}$$

$$V_V = 8.6 \times 10^{-3} \text{ ft/yr} \times 0.206 \times \frac{1}{0.05} = 0.04 \text{ ft/yr at MW-10/MW-13.}$$

It is clear that the calculated vertical velocity of groundwater is higher than the calculated horizontal velocity. Furthermore, the vertical velocity is higher near the impoundment. This is probably due to higher hydraulic gradient resulting from the groundwater mound under the impoundment.

However, the calculated velocities in the vertical direction seem to be higher for K_F and lower for K_L than would be expected. This is probably due to both differences between K_F and K_L and to the

assumption made that K was equal in horizontal and vertical directions. The value of K should be lower with depth due to compaction and lack of weathering. If it is assumed that the contaminants reached to 52 ft depth in MW-9 in 17 years, V_v is calculated to be 3 ft/yr. At this velocity, K would be about 2.6×10^7 cm/sec (0.27 ft.yr) which is probably the average hydraulic conductivity of the till in vertical direction and more reasonable than K_L . Thus, the 3 ft/yr vertical velocity near the impoundment seems to be reasonable, too.

Using $K = 2.6 \times 10^7$ cm/sec, the velocity of groundwater in vertical direction at the location of MW-10/MW-13 is calculated as 2.3 ft/yr.

Rate of Discharge from the Impoundment

Under saturated conditions, the volume of discharge from the bottom of the impoundment can be calculated using the Darcy's formula. The discharge has been calculated in two ways by using the hydraulic conductivity measured in the laboratory and in the field. The Darcy's formula is:

$$Q = K \frac{dh}{dl} A \text{ where,}$$

$$Q = \text{Volume of discharge, ft}^3/\text{yr}$$

$$\frac{dh}{dl} = \text{Hydraulic gradient} = 0.025 \text{ in the affected area}$$

$$A = \text{Area of the impoundment} = 34,000 \text{ ft}^2$$

$$K_F = \text{Field hydraulic conductivity} = 6 \times 10^5 \text{ cm/sec} \\ = 62.1 \text{ ft/yr}$$

$$K_L = \text{Laboratory hydraulic conductivity} = 8.3 \times 10^9 \text{ cm/sec} \\ = 8.6 \times 10^3 \text{ ft/yr}$$

When the above values introduced into the formula,

$$Q_F = 62.1 \text{ ft/yr} \times 0.025 \times 34,000 \text{ ft}^2 = 52,785 \text{ ft}^3/\text{yr} \\ = 394,832 \text{ gallon/yr}$$

$$Q_L = 8.6 \times 10^3 \text{ ft/yr} \times 0.025 \times 34,000 \text{ ft}^2 = 7.31 \text{ ft}^3/\text{yr} \\ = 54.7 \text{ gallon/yr}$$

The great difference between the Q_F and Q_L is due to the difference of about four order of magnitude between K_L and K_F .

Rate of Discharge at the Property Boundary

The Darcy's formula is used to estimate this rate. The estimate was made for a unit length, i.e. 100 ft, and a 30-ft saturated thickness. The hydraulic gradient is approximately 0.008 near the boundary. K_F , field conductivity, is used in calculations.

The Darcy's formula is:

$$Q = K_F \frac{dh}{dl} A \text{ where,}$$

$$A = 100 \text{ ft} \times 30 \text{ ft} = 3,000 \text{ ft}^2$$

$$Q = 62.1 \text{ ft/yr} \times 0.008 \times 3,000 \text{ ft}^2 = 1,490 \text{ ft}^3/\text{yr} \\ = 11,148 \text{ gallons/yr}$$

Thus, the estimated volume of groundwater flow is 12,542 gallons per year through the upper 30 ft of the saturated zone of the till and along the 100-ft length of the property boundary.

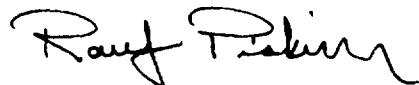
CONCLUSIONS

1. A groundwater mound has formed beneath the impoundment due to migration of waste fluids from the impoundment.
2. Regional flow direction of groundwater is towards southeast.
3. Eight hazardous waste constituents have been identified in the contaminated groundwater.
4. The concentrations of the hazardous waste constituents in the groundwater is relatively low, in ppb level, except the tetrachloroethylene was 51 mg/l in G106.
5. The impoundment has been leaking. The leakage has caused the contamination of the shallow groundwater near the impoundment.
6. No hazardous waste constituents were identified in relatively deep groundwater.
7. It is estimated that the contaminated shallow groundwater flow has traveled a distance of 350 ft in the regional flow direction.
8. The groundwater along the eastern boundary of the plant has not been contaminated.

RECOMMENDATIONS

1. Quarterly samples should be collected from the monitoring wells in April 1985.
2. Water levels in all monitoring wells should be measured in the same day prior to sampling.
3. Prior to the next sampling, "Groundwater Quality Assessment Program" should be amended:
 - a. To modify the monitoring system for better assessment of vertical and horizontal migration of the hazardous waste constituents, and
 - b. To modify the list of hazardous waste constituents to be analyzed in groundwater samples.
4. The above amendment should be implemented prior to the next sampling.
5. To prevent cross contamination, sampling equipment (bailer or pump) should be properly decontaminated prior to sampling of each well.

Prepared by:



Rauf Piskin, C.P.G. 5090
Hydrogeologist

LIST OF REFERENCES

Cabot Corporation Files

Hydropoll, Inc. 1984a. Groundwater quality assessment program at Cabot Corporation plant, Tuscola, Illinois (as amended, p. 21).

Hydropoll, Inc. 1984b. Assessment of annually collected groundwater samples, RCRA impoundment, Cabot Corporation plant, Tuscola, Illinois, p. 26, December, 1984.

IPCB. 1984. Rules and regulations, Subtitle G: Waste Disposal, p. 194.

APPENDIX
Monitoring Data

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF LAND POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Page 1 of 2

RECORD CODE
L P C S M O 1 1 A
TRANS CODE
8

REPORT DUE DATE 36 M / D / Y 41

FEDERAL ID NUMBER I L D 0 4 2 0 7 5 3 3 3

SITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1 18

MONITOR POINT NUMBER G 1 0 1 19 22

(see Instructions)

DATE COLLECTED 0 1 / 1 4 / 8 5 23 M / D / Y 28

REGION C CO. DOUGLAS

TUSCOLA CABOT CORPORATION

LOCATION

RESPONSIBLE PARTY

IFPA LAB (x or Blank)

29 MW-1

(see Instructions)

FOR IEPA USE ONLY

COMPLAINT NO.

DATE RECEIVED 42 M / D / Y 47

SAMPLING PURPOSE CODE 48

(see Instructions)

TIME CARD

PROGRAM CODE 49 52 & UNIT CODE 53

BACKGROUND SAMPLE (X)

54

TIME COLLECTED

(24 HR CLOCK)

1 4 : 5 2 55 H : M 58

UNABLE TO COLLECT SAMPLE

(see Instructions)

59

MONITOR POINT SAMPLED BY

2 60

Peristaltic
OTHER (SPECIFY)

SAMPLE FIELD FILTERED - INORGANICS (X)

61

ORGANICS (X)

62

SAMPLE APPEARANCE

COLORLESS + SLIGHTLY
TURBID

COLLECTOR COMMENTS

103

102

142

SPECIAL INSTRUCTIONS TO LAB

J. P. Smith
COLLECTED BYJ. P.
INITIALSCabot Corp
DIVISION OR COMPANY—
TRANSPORTED BYEmergency Air Freight
DIVISION OR COMPANY

LAB USE ONLY

LAB SAMPLE NO.

LAB NAME

TET Analytical

LAB ID NO.

0 0 0 5 146 149

DATE RECEIVED

AND ADDRESS

460 S. Northwest Hwy
Park Ridge, IL 60068

TIME RECEIVED

SAMPLE TEMP OKAY (Y/N)

SAMPLE PROPERLY PRESERVED (Y/N)

DATE COMPLETED

FORWARD

LAB COMMENTS

150

199

SUPERVISOR SIGNATURE

RECORD CODE L P C S M O 2 2 TRANS CODE A 8

FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE		STORET NUMBER	35	36	37	38	39	40	41	42	REPORTING LEVEL	
X	DEPTH TO WATER (ft. below LS)	7 2 0 1 9 34	35	36	37	38	39	40	41	42	2	R
	ELEVATION OF GW SURFACE (ft. ref MSL)	7 1 9 9 3	—	—	—	—	—	—	—	—	—	—
	TOTAL WELL DEPTH (ft. below LS)	7 2 0 0 8	—	—	—	—	—	—	—	—	—	—
	ALKALINITY TOTAL (mg/l as CaCO ₃) - Field	0 0 4 3 1	—	—	—	—	—	—	—	—	—	—
	REDOX POTENTIAL (millivolt) - Field	0 0 0 9 0	—	—	—	—	—	—	—	—	—	—
	pH (units) - Field	0 0 4 0 0	—	—	—	—	—	—	—	—	—	—
	SPEC CONDUCTANCE (umhos) - Field	0 0 0 9 4	—	—	—	—	—	—	—	—	—	—
V	TEMP OF WATER SAMPLE (°F) - Field	0 0 0 1 1	—	—	—	—	—	—	—	—	1	L
		— — — — —	—	—	—	—	—	—	—	—	—	—
		— — — — —	—	—	—	—	—	—	—	—	—	—

This Agency is authorized to require this information under Illinois Revised Statutes 1979, Chapter 111 1.2, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000 for each day the failure continues, a fine up to \$1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

RECORD CODE L P C S M 0 2TRANS CODE ASITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1
9 18MONITOR POINT NUMBER G 1 0 1
19 22DATE COLLECTED 0 1 4 / 8 5
23 M D Y 28ION C CO. DOUGLASIEPA LAB (x or Blank) 29 MW-1

TUSCOLA / CABOT CORPORATION

LOCATION RESPONSIBLE PARTY

LAB MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE		STORET NUMBER	1	2	< OR >	VALUE	REPORTING LEVEL	
							DRIFT TOL 100 P	100 P TOL
	CNDUCTVY FIELD MICROMHO	0 0 0 9 4	35	1	37	38	48	49
	CNDUCTVY FIELD MICROMHO	0 0 0 9 4		2				
	CNDUCTVY FIELD MICROMHO	0 0 0 9 4		3				
	CNDUCTVY FIELD MICROMHO	0 0 0 9 4		4				
	FIELD PH SU	0 0 4 0 0		1				
	FIELD PH SU	0 0 4 0 0		2				
	FIELD PH SU	0 0 4 0 0		3				
	FIELD PH SU	0 0 4 0 0		4				
	T ORG C AS C MG/L	0 0 6 8 0		1				
	T ORG C AS C MG/L	0 0 6 8 0		2				
	T ORG C AS C MG/L	0 0 6 8 0		3				
	T ORG C AS C MG/L	0 0 6 8 0		4				
	SODIUM NA, DISS MG/L	0 0 9 3 0						
	CHLORIDE CL, MG/L	0 0 9 4 0						
	SULFATE SO4, DISS MG/L	0 0 9 4 6						
	IRON FE, DISS UG/L	0 1 0 4 6						
	MANGANESE MN, DISS UG/L	0 1 0 5 6						
	PHENOLS TOTAL UG/L	3 2 7 3 0						
	TOX HALOGEN UG/L	7 8 1 1 5		1				
	TOX HALOGEN UG/L	7 8 1 1 5		2				
	TOX HALOGEN UG/L	7 8 1 1 5		3				
	TOX HALOGEN UG/L	7 8 1 1 5		4				
	CARBONTET TOT IN WTR UG/L	3 2 1 0 2			<	1	1	<
	METHYLENE CHLORIDE T UG/L	3 4 4 2 3			<	1	1	<
	TETRACHLOROETHYLENE T UG/L	3 4 4 7 5			<	1	1	<
	BIS (2-ETHHEX) PHTH T W UG/L	3 9 1 0 0			<	1 0	2	<

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Page 1 of 2

RECORD CODE L P C S M 0 1
 TRANS CODE A

REPORT DUE DATE 36 M / D / Y 41

FEDERAL ID NUMBER I L D 0 4 2 0 7 5 3 3 3

SITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1
18

MONITOR POINT NUMBER G 1 0 6
 (see Instructions) 19

REGION C CO. DOUGLAS

DATE COLLECTED 0 1 / 1 4 / 8 5
23 M / D / Y 28

TUSCOLA CABOT CORPORATION
 LOCATION RESPONSIBLE PARTY

IEPA LAB (x or Blank) 29 MW-6
 (see Instructions)

FOR IEPA USE ONLY

COMPLAINT NO. _____

DATE RECEIVED 42 M / D / Y 47

SAMPLING PURPOSE CODE 48
 (see Instructions)

TIME CARD

PROGRAM CODE 49 — — 52 & UNIT CODE 53

BACKGROUND SAMPLE (X) 54

TIME COLLECTED 1 1 / 1 8
 (24 HR CLOCK) 55 H / M 58

UNABLE TO COLLECT SAMPLE 59
 (see Instructions)

MONITOR POINT SAMPLED BY 2 PERISTALTIC
 (see Instructions) 60 OTHER (SPECIFY)

SAMPLE FIELD FILTERED - INORGANICS (X) 57 ORGANICS (X) 52

SAMPLE APPEARANCE L I G H T G R E E N , C L E A R
63

COLLECTOR COMMENTS 102

SPECIAL INSTRUCTIONS TO LAB 103

J. Smith
 COLLECTED BY

J P
 INITIALS

Cabot Corp
 DIVISION OR COMPANY

TRANSPORTED BY

Emery Air Freight
 DIVISION OR COMPANY

LAB USE ONLY

LAB SAMPLE NO. _____ LAB NAME TEI Analytical, Inc LAB ID NO. 0 0 0 5
146 149

DATE RECEIVED _____ AND ADDRESS 460 S. Northwest Hwy

TIME RECEIVED _____ Park Ridge, IL 60068

SAMPLE TEMP OKAY (Y/N) _____ SAMPLE PROPERLY PRESERVED (Y/N) _____ DATE COMPLETED _____ FORWARD _____

LAB COMMENTS 150

159

SUPERVISOR SIGNATURE

RECORD CODE L P C S M 0 2 TRANS CODE A

FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE		STORET NUMBER	RE S P O N S E	RE P L I C A T E	< OR >	VALUE	REPORTING LEVEL
							DIGITS TO L OR R
X	DEPTH TO WATER (ft. below LS)	<u>7 2 0 1 9</u> <u>30</u> <u>34</u>	<u>35</u>	<u>36</u>	<u>37</u>	<u>38</u> <u>2 9 2</u> <u>47</u>	<u>2</u> <u>R</u> <u>48</u> <u>49</u>
	ELEVATION OF GW SURFACE (ft. ref MSL)	<u>7 1 9 9 3</u>					
	TOTAL WELL DEPTH (ft. below LS)	<u>7 2 0 0 8</u>					
	ALKALINITY TOTAL (mg/l as CaCO3) - Field	<u>0 0 4 3 1</u>					
	REDOX POTENTIAL (millivolt) - Field	<u>0 0 0 9 0</u>					
	pH (units) - Field	<u>0 0 4 0 0</u>					
	SPEC CONDUCTANCE (umhos) - Field	<u>0 0 0 9 4</u>					
X	TEMP OF WATER SAMPLE (°F) - Field	<u>0 0 0 1 1</u>				<u>5 0</u>	<u>1</u> <u>L</u>

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000 for each day the failure continues, a fine up to \$1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

RECORD CODE L P C S M 0 2 TRANS CODE ASITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1
9 18MONITOR POINT NUMBER G 1 0 6
19 22DATE COLLECTED 0 1 1 4 8 5
23 M D Y 28ON C CO. DOUGLASIEPA LAB (x or Blank) 29 MW-6LOCATION TUSCOLA / CABOT CORPORATION
RESPONSIBLE PARTY

LAB MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER	REL TIME MIN	AP PLI CAT	< OR >	VALUE	REPORTING LEVEL	
						QUALITY TOL UM R	LINE R (OF TOTAL)
CNDUCTVY FIELD MICROMHO	<u>0</u> <u>0</u> <u>0</u> <u>9</u> <u>4</u>	<u>30</u>	<u>34</u>	<u>35</u>	<u>36</u>	<u>37</u>	<u>38</u> <u>39</u>
CNDUCTVY FIELD MICROMHO	<u>0</u> <u>0</u> <u>0</u> <u>9</u> <u>4</u>			<u>2</u>			
CNDUCTVY FIELD MICROMHO	<u>0</u> <u>0</u> <u>0</u> <u>9</u> <u>4</u>			<u>3</u>			
CNDUCTVY FIELD MICROMHO	<u>0</u> <u>0</u> <u>0</u> <u>9</u> <u>4</u>			<u>4</u>			
FIELD PH SU	<u>0</u> <u>0</u> <u>4</u> <u>0</u> <u>0</u>			<u>1</u>			
FIELD PH SU	<u>0</u> <u>0</u> <u>4</u> <u>0</u> <u>0</u>			<u>2</u>			
FIELD PH SU	<u>0</u> <u>0</u> <u>4</u> <u>0</u> <u>0</u>			<u>3</u>			
FIELD PH SU	<u>0</u> <u>0</u> <u>4</u> <u>0</u> <u>0</u>			<u>4</u>			
T ORG C AS C MG/L	<u>0</u> <u>0</u> <u>6</u> <u>8</u> <u>0</u>			<u>1</u>			
T ORG C AS C MG/L	<u>0</u> <u>0</u> <u>6</u> <u>8</u> <u>0</u>			<u>2</u>			
T ORG C AS C MG/L	<u>0</u> <u>0</u> <u>6</u> <u>8</u> <u>0</u>			<u>3</u>			
T ORG C AS C MG/L	<u>0</u> <u>0</u> <u>6</u> <u>8</u> <u>0</u>			<u>4</u>			
SODIUM NA, DISS MG/L	<u>0</u> <u>0</u> <u>9</u> <u>3</u> <u>0</u>						
CHLORIDE CL, MG/L	<u>0</u> <u>0</u> <u>9</u> <u>4</u> <u>0</u>						
SULFATE SO ₄ , DISS MG/L	<u>0</u> <u>0</u> <u>9</u> <u>4</u> <u>6</u>						
IRON FE, DISS UG/L	<u>0</u> <u>1</u> <u>0</u> <u>4</u> <u>6</u>						
MANGANESE MN, DISS UG/L	<u>0</u> <u>1</u> <u>0</u> <u>5</u> <u>6</u>						
PHENOLS TOTAL UG/L	<u>3</u> <u>2</u> <u>7</u> <u>3</u> <u>0</u>						
TOX HALOGEN UG/L	<u>7</u> <u>8</u> <u>1</u> <u>1</u> <u>5</u>			<u>1</u>			
TOX HALOGEN UG/L	<u>7</u> <u>8</u> <u>1</u> <u>1</u> <u>5</u>			<u>2</u>			
TOX HALOGEN UG/L	<u>7</u> <u>8</u> <u>1</u> <u>1</u> <u>5</u>			<u>3</u>			
TOX HALOGEN UG/L	<u>7</u> <u>8</u> <u>1</u> <u>1</u> <u>5</u>			<u>4</u>			
CARBONTET TOT IN WTR UG/L	<u>3</u> <u>2</u> <u>1</u> <u>0</u> <u>2</u>				<u>16</u>	<u>1</u>	<u>2</u>
METHYLENE CHLORIDE T UG/L	<u>3</u> <u>4</u> <u>4</u> <u>2</u> <u>3</u>				<u>30</u>	<u>1</u>	<u>2</u>
TETRACHLOROETHYLENE T UG/L	<u>3</u> <u>4</u> <u>4</u> <u>7</u> <u>5</u>				<u>51000</u>	<u>2</u>	<u>2</u>
BIS (2-ETHHEX) PTH T W UG/L	<u>3</u> <u>9</u> <u>1</u> <u>0</u> <u>0</u>			<u><</u>	<u>10</u>	<u>2</u>	<u>2</u>

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Page 1 of 2

RECORD CODE L P C S M 0 1
 TRANS CODE A

REPORT DUE DATE 36 M / D / Y 47

FEDERAL ID NUMBER I L D 0 4 2 0 7 5 3 3 3

SITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1
18

MONITOR POINT NUMBER G 1 0 7
 (see Instructions) 19 22

REGION C CO. DOUGLAS

DATE COLLECTED 0 1 / 1 4 / 8 5
23 M / D / Y 28

LOCATION TUSCOLA RESPONSIBLE PARTY CABOT CORPORATION

IEPA LAB (x or Blank) 29 MW-7
 (see Instructions)

FOR IEPA USE ONLY COMPLAINT NO. _____
 DATE RECEIVED 42 M / D / Y 47
 SAMPLING PURPOSE CODE 48
 (see Instructions)
 TIME CARD
 PROGRAM CODE 49 — — 52 & UNIT CODE 53

BACKGROUND SAMPLE (X) 54 TIME COLLECTED 1 4 : 1
 (24 HR CLOCK) 55 H M

UNABLE TO COLLECT SAMPLE 59
 (see Instructions)

MONITOR POINT SAMPLED BY 2 PERISTALTIC
 (see Instructions) 60 OTHER (SPECIFY)

SAMPLE FIELD FILTERED - INORGANICS (X) 61 ORGANICS (X)

SAMPLE APPEARANCE 63 COLORLESS, CLEAR

COLLECTOR COMMENTS 103

SPECIAL INSTRUCTIONS TO LAB _____

COLLECTED BY J P INITIALS 143 145 DIVISION OR COMPANY Cabot Corp TRANSPORTED BY Emergency Air Freight DIVISION OR COMPANY

LAB USE ONLY			
LAB SAMPLE NO. _____	LAB NAME <u>TEI Analytical</u>	LAB ID NO. <u>0 0 5</u> <u>146 149</u>	
DATE RECEIVED _____	AND ADDRESS <u>460 S. Northwest Hwy</u>		
TIME RECEIVED _____	<u>Park Ridge, IL 60068</u>		
SAMPLE TEMP OKAY (Y/N) _____	SAMPLE PROPERLY PRESERVED (Y/N) _____	DATE COMPLETED _____	FORWARD _____
LAB COMMENTS <u>150</u>			
_____ <u>199</u>			
SUPERVISOR SIGNATURE			

RECORD CODE L P C S M 0 2 TRANS CODE A

	FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER	R E S E R V E R S E S	R E P L I C A T E	< OR >	VALUE	REPORTING LEVEL	
							DI G I T I Z E D	U N I T S
X	DEPTH TO WATER (ft. below LS)	<u>7 2 0 1 9</u> <u>30 34</u>	<u>35</u>	<u>36</u>	<u>37</u>	<u>38</u> <u>4 3 3</u> <u>47</u>	<u>2</u>	<u>8</u>
	ELEVATION OF GW SURFACE (ft. ref MSL)	<u>7 1 9 9 3</u>						
	TOTAL WELL DEPTH (ft. below LS)	<u>7 2 0 0 8</u>						
	ALKALINITY TOTAL (mg/l as CaCO3) - Field	<u>0 0 4 3 1</u>						
	REDOX POTENTIAL (millivolt) - Field	<u>0 0 0 9 0</u>						
	pH (units) - Field	<u>0 0 4 0 0</u>						
	SPEC CONDUCTANCE (umhos) - Field	<u>0 0 0 9 4</u>						
Y	TEMP OF WATER SAMPLE (°F) - Field	<u>0 0 0 1 1</u>				<u>50</u>	<u>1</u>	<u>L</u>

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000 for each day the failure continues, a fine up to \$1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

RECORD CODE L | P | C | S | M | 0 | 2 TRANS CODE ASITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1MONITOR POINT NUMBER G 1 0 7REGION C CO. DOUGLASDATE COLLECTED 0 1 / 1 4 / 8 5

TUSCOLA / CABOT CORPORATION

IEPA LAB (x or Blank) 29 MW-7

LOCATION RESPONSIBLE PARTY

LAB MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER	RE P L I C A T I O N	< OR >	VALUE	REPORTING LEVEL	
					DO NOT TO L OR R	FOR R OR L ESTIMATE
CNDUCTVY FIELD MICROMHO	0 0 0 9 4	30 34 35 36 37 38 39 40	1	---	40	40
CNDUCTVY FIELD MICROMHO	0 0 0 9 4	---	2	---	---	---
CNDUCTVY FIELD MICROMHO	0 0 0 9 4	---	3	---	---	---
CNDUCTVY FIELD MICROMHO	0 0 0 9 4	---	4	---	---	---
FIELD PH SU	0 0 4 0 0	---	1	---	---	---
FIELD PH SU	0 0 4 0 0	---	2	---	---	---
FIELD PH SU	0 0 4 0 0	---	3	---	---	---
FIELD PH SU	0 0 4 0 0	---	4	---	---	---
T ORG C AS C MG/L	0 0 6 8 0	---	1	---	---	---
T ORG C AS C MG/L	0 0 6 8 0	---	2	---	---	---
T ORG C AS C MG/L	0 0 6 8 0	---	3	---	---	---
T ORG C AS C MG/L	0 0 6 8 0	---	4	---	---	---
SODIUM NA, DISS MG/L	0 0 2 3 0	---	---	---	---	---
CHLORIDE CL, MG/L	0 0 9 4 0	---	---	---	---	---
SULFATE SO4, DISS MG/L	0 0 9 4 6	---	---	---	---	---
IRON FE, DISS UG/L	0 1 0 4 6	---	---	---	---	---
MANGANESE MN, DISS UG/L	0 1 0 5 6	---	---	---	---	---
PHENOLS TOTAL UG/L	3 2 7 3 0	---	---	---	---	---
TOX HALOGEN UG/L	7 8 1 1 5	---	1	---	---	---
TOX HALOGEN UG/L	7 8 1 1 5	---	2	---	---	---
TOX HALOGEN UG/L	7 8 1 1 5	---	3	---	---	---
TOX HALOGEN UG/L	7 8 1 1 5	---	4	---	---	---
CARBONTET TOT IN WTR UG/L	3 2 1 0 2	---	<	1	1	L
METHYLENE CHLORIDE T UG/L	3 4 4 2 3	---	<	1	1	L
TETRACHLOROETHYLENE T UG/L	3 4 4 7 5	---	---	330	1	L
BIS(2-ETHHEX) PHTH T W UG/L	3 9 1 0 0	---	<	10	2	L
	---	---	---	---	---	---
	---	---	---	---	---	---

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF LAND POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Page 1 of 2

RECORD CODE
L P C S M 0 1 7
TRANS CODE
A 8

REPORT DUE DATE 36 M / D / Y 47

FEDERAL ID NUMBER I L D 0 4 2 0 7 5 3 3 3

SITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1 18

MONITOR POINT NUMBER 19 1 0 8 22

REGION C CO. DOUGLAS

(see Instructions)
DATE COLLECTED 0 1 / 1 4 / 8 5 23 M / D / Y 28

TUSCOLA CABOT CORPORATION

IEPA LAB (x or Blank) 29 MW-8
(see Instructions)

LOCATION RESPONSIBLE PARTY

FOR IEPA USE ONLY

COMPLAINT NO.

DATE RECEIVED 42 M / D / Y 47

SAMPLING PURPOSE CODE 48
(see Instructions)

TIME CARD

PROGRAM CODE 49 52 & UNIT CODE 53

BACKGROUND SAMPLE (X) 54

TIME COLLECTED 1 3 : 4 2
(24 HR CLOCK) 55 H M 58UNABLE TO COLLECT SAMPLE 55
(see Instructions)MONITOR POINT SAMPLED BY 2 60
(see Instructions)Peristaltic
OTHER (SPECIFY)

SAMPLE FIELD FILTERED - INORGANICS (X) 61 ORGANICS (X) 62

SAMPLE APPEARANCE

LIGHT GREEN, CLEAR

COLLECTOR COMMENTS

SPECIAL INSTRUCTIONS TO LAB

COLLECTED BY

J P
INITIALS 143 145

DIVISION OR COMPANY

Cabot Corp

TRANSPORTED BY

Emergency Air Freight
DIVISION OR COMPANY

LAB SAMPLE NO. LAB NAME TEL Analytical LAB ID NO. 0 0 0 5 146 149

DATE RECEIVED AND ADDRESS 460 S. Northwest Hwy

TIME RECEIVED Park Ridge, IL 60061

SAMPLE TEMP OKAY (Y/N) SAMPLE PROPERLY PRESERVED (Y/N) DATE COMPLETED FORWARD

LAB COMMENTS 150

199

SUPERVISOR SIGNATURE

RECORD CODE L P C S M 0 2 7 TRANS CODE A 8

FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE		STORET NUMBER	RE S P O N S E	RE S P O N S E	< OR >	VALUE	REPORTING LEVEL	
							QUALITY THAT OR B	LOW B 100 ORIGINAL
X	DEPTH TO WATER (ft. below LS)	7 3 0 1 9 30 34	35	36	37	38 3 1 5 47	2	2
	ELEVATION OF GW SURFACE (ft. ref MSL)	7 1 9 9 3						
	TOTAL WELL DEPTH (ft. below LS)	7 2 0 0 8						
	ALKALINITY TOTAL (mg/l as CaCO3) - Field	0 0 4 3 1						
	REDOX POTENTIAL (millivolt) - Field	0 0 0 9 0						
	pH (units) - Field	0 0 4 0 0						
	SPEC CONDUCTANCE (umhos) - Field	0 0 0 9 4						
X	TEMP OF WATER SAMPLE (°F) - Field	0 0 0 1 1				50	1	L

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000 for each day the failure continues, a fine up to \$1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

RECORD CODE L P C S M 0 2 TRANS CODE ASITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1
9 18REGION C CO. DOUGLASMONITOR POINT NUMBER G 1 0 8
19 22DATE COLLECTED 0 1 / 1 4 / 8 6
23 M 1 D 4 Y 28IEPA LAB (x or Blank) 29 MW-8TUSCOLA / CAROT CORPORATION
LOCATION RESPONSIBLE PARTY

LAB MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE		STORET NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120
---	--	------------------	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Page 1 of 2

RECORD CODE L P C S M 0 1
 TRANS CODE A

REPORT DUE DATE 36 M / — D / Y 47

FEDERAL ID NUMBER I L D 0 4 2 0 7 5 3 3 3

SITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1
18

MONITOR POINT NUMBER G 1 0 9
19

REGION C CO. DOUGLAS

DATE COLLECTED 0 1 / 1 4 / 8 5
23 M 1 D Y 28

TISCOLO CABOT CORPORATION

IEPA LAB (x or Blank) 29 MW-9
 (see Instructions)

LOCATION RESPONSIBLE PARTY

FOR IEPA USE ONLY COMPLAINT NO. _____
 DATE RECEIVED 42 M / — D / Y 47
 SAMPLING PURPOSE CODE 48
 (see Instructions)
 TIME CARD
 PROGRAM CODE 49 52 & UNIT CODE 53

BACKGROUND SAMPLE (X) 54 TIME COLLECTED 1 0 3 7
 (24 HR CLOCK) 65 H M 58

UNABLE TO COLLECT SAMPLE 59
 (see Instructions)
 MONITOR POINT SAMPLED BY D OTHER (SPECIFY) _____
 (see Instructions) 60

SAMPLE FIELD FILTERED - INORGANICS (X) 61 ORGANICS (X) 62

SAMPLE APPEARANCE C O L O R L E S S , T U R B I D

COLLECTOR COMMENTS D I W M E A S U R E D I I I
P R I O R T O W E L L P U R G E

SPECIAL INSTRUCTIONS TO LAB _____

COLLECTED BY J. Smith INITIALS J P DIVISION OR COMPANY Cabot Corp TRANSPORTED BY Emergency Air Freight DIVISION OR COMPANY _____

LAB USE ONLY			
LAB SAMPLE NO. _____	LAB NAME <u>TEI Analytical Inc</u>	LAB ID NO. <u>0 0 0 5</u>	<u>146</u> <u>149</u>
DATE RECEIVED _____	AND ADDRESS <u>460 S Northwest Hwy</u>		
TIME RECEIVED _____	<u>Park Ridge, IL 60068</u>		
SAMPLE TEMP OKAY (Y/N) _____	SAMPLE PROPERLY PRESERVED (Y/N) _____	DATE COMPLETED _____	FORWARD _____
LAB COMMENTS <u>150</u>			
SUPERVISOR SIGNATURE _____			

RECORD CODE L P C S M 0 2 TRANS CODE A

	FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER	R E C E I V E D	P L I C A T E	< OR >	VALUE	REPORTING LEVEL	
							DI G I T S T O L O B	U N I T S O R D I N A L
X	DEPTH TO WATER (ft. below LS)	<u>7 2 0 1 9</u> <u>30</u> <u>34</u>	<u>35</u>	<u>36</u>	<u>37</u>	<u>38</u> <u>21.34</u> <u>39</u>	<u>2</u>	<u>R</u>
	ELEVATION OF GW SURFACE (ft. ref MSL)	<u>7 1 9 9 3</u>						
	TOTAL WELL DEPTH (ft. below LS)	<u>7 2 0 0 8</u>						
	ALKALINITY TOTAL (mg/l as CaCO3) - Field	<u>0 0 4 3 1</u>						
	REDOX POTENTIAL (millivolt) - Field	<u>0 0 0 9 0</u>						
	pH (units) - Field	<u>0 0 4 0 0</u>						
	SPEC CONDUCTANCE (umhos) - Field	<u>0 0 0 9 4</u>						
X	TEMP OF WATER SAMPLE (°F) - Field	<u>0 0 0 1 1</u>				<u>50</u>	<u>1</u>	<u>L</u>

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000 for each day the failure continues, a fine up to \$1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

IEPA LAB (x or Blank) 29 MW-9

LPC 160 3/B4

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF LAND POLLUTION CONTROL

CHEMICAL ANALYSIS FORM

Page 1 of 2

RECORD CODE
L P C S M O I
1 1 1 1 1 1 1TRANS CODE
A
8

REPORT DUE DATE 36 M / D / Y 41

FEDERAL ID NUMBER 1 L D 0 4 2 0 7 5 3 3 3

SITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1
18MONITOR POINT NUMBER C 1 1 0
19 22

REGION C CO. DOUGLAS

(see Instructions)
DATE COLLECTED 0 1 / 1 4 / 8 5
23 M / D / Y 28

LOCATION TUSCOLA RESPONSIBLE PARTY CABOT CORPORATION

IEPA LAB (x or Blank) 29 NW-10
(see Instructions)

FOR IEPA USE ONLY

COMPLAINT NO.

DATE RECEIVED 42 M / D / Y 47

SAMPLING PURPOSE CODE 48

(see Instructions)

TIME CARD

PROGRAM CODE 49 52 & UNIT CODE 53

BACKGROUND SAMPLE (X) 54

TIME COLLECTED 0 9 : 3 5
(24 HR CLOCK) 55 H / M / SUNABLE TO COLLECT SAMPLE 59
(see Instructions)MONITOR POINT SAMPLED BY 2 Peristaltic
60 OTHER (SPECIFY)

SAMPLE FIELD FILTERED - INORGANICS (X) 61

ORGANICS (X) 62

SAMPLE APPEARANCE

C O L O R L E S S + C L E A R
63

COLLECTOR COMMENTS

103

102

142

SPECIAL INSTRUCTIONS TO LAB

J. D. Smith
COLLECTED BYJ P
INITIALSCabot Corp
DIVISION OR COMPANY-
TRANSPORTED BYEmergency Air Freight
DIVISION OR COMPANY

LAB USE ONLY

LAB SAMPLE NO. LAB NAME TET Analytical, Inc. LAB ID NO. 0 0 0 5
146 149

DATE RECEIVED AND ADDRESS 460 S. North Street Hwy

TIME RECEIVED Park Ridge, IL 60068

SAMPLE TEMP OKAY (Y/N) SAMPLE PROPERLY PRESERVED (Y/N) DATE COMPLETED FORWARD

LAB COMMENTS 150

199

SUPERVISOR SIGNATURE

RECORD CODE L P C S M O I 2 TRANS CODE A 8

FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE		STORET NUMBER	RE COR RECT	RE COR RECT	< OR >	VALUE	REPORTING LEVEL	
							NO. OF TESTS PER S	TYPE OF ANALYSIS
X	DEPTH TO WATER (ft. below LS)	7 2 0 1 9 30 34	35	36	37	35	2	R
	ELEVATION OF GW SURFACE (ft. ref MSL)	7 1 9 9 3						
	TOTAL WELL DEPTH (ft. below LS)	7 2 0 0 8						
	ALKALINITY TOTAL (mg/l as CaCO3) - Field	0 0 4 3 1						
	REDOX POTENTIAL (millivolt) - Field	0 0 0 9 0						
	pH (units) - Field	0 0 4 0 0						
	SPEC CONDUCTANCE (umhos) - Field	0 0 0 9 4						
X	TEMP OF WATER SAMPLE (°F) - Field	0 0 0 1 1				47	1	L

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000 for each day the failure continues, a fine up to \$1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
CHEMICAL ANALYSIS FORM**

Page 1 of 2

RECORD CODE L P C S M 0 1 TRANS CODE A
1 8

REPORT DUE DATE 36 M / 15 / Y 41

FEDERAL ID NUMBER 1 L D 0 4 2 0 7 5 3 3 3

SITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1
REGION C CO. DOUGLAS
TUSCOLA CABOT CORPORATION
LOCATION RESPONSIBLE PARTY

MONITOR POINT NUMBER C 1 1 1
(see Instructions) 19 22
DATE COLLECTED 0 1 / 1 4 / 8 5
23 M 1 D Y 28
IEPA LAB (x or Blank) 29 MW-11
(see Instructions)

FOR IEPA USE ONLY COMPLAINT NO. _____
DATE RECEIVED 42 M / D / Y 41
SAMPLING PURPOSE CODE 48
(see Instructions)
TIME CARD
PROGRAM CODE 49 — — 52 & UNIT CODE 53

BACKGROUND SAMPLE (X) 54 TIME COLLECTED 1 0 : 0 0
(24 HR CLOCK) 55 11 M 58
UNABLE TO COLLECT SAMPLE 59
(see Instructions)
MONITOR POINT SAMPLED BY 2 Peristaltic
(see Instructions) 60 OTHER (SPECIFY)
SAMPLE FIELD FILTERED - INORGANICS (X) 61 ORGANICS (X) 62

SAMPLE APPEARANCE 63 C O L O R L E S S + C L E A R

COLLECTOR COMMENTS 103

SPECIAL INSTRUCTIONS TO LAB _____

J. P. Smith J P Cabot Corp Emergency Air Freight
COLLECTED BY INITIALS DIVISION OR COMPANY TRANSPORTED BY DIVISION OR COMPANY

LAB USE ONLY
LAB SAMPLE NO. _____ LAB NAME TET Analytical, Inc LAB ID NO. 0 0 0 5
DATE RECEIVED _____ AND ADDRESS 460 S. Northwest Hwy
TIME RECEIVED _____ Park Ridge, IL 60068
SAMPLE TEMP OKAY (Y/N) _____ SAMPLE PROPERLY PRESERVED (Y/N) _____ DATE COMPLETED _____ FORWARD _____
LAB COMMENTS 150 _____
_____ 199
SUPERVISOR SIGNATURE _____

RECORD CODE L P C S M 0 2 TRANS CODE A
1 8

	FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER	RECEIVED DATE	RECEIVED TIME	< OR >	VALUE	REPORTING LEVEL	
							DEPTH FEET (OR)	DATE OF ANALYSIS
X	DEPTH TO WATER (ft. below LS)	<u>7 2 0 1 9</u> <u>30 34</u>	<u>35</u>	<u>36</u>	<u>37</u>	<u>38</u> — — — <u>3 4 1</u> — — <u>47</u>	<u>2</u>	<u>R</u>
	ELEVATION OF GW SURFACE (ft. ref MSL)	<u>7 1 9 9 3</u>	—	—	—	— — — — — — — —	—	—
	TOTAL WELL DEPTH (ft. below LS)	<u>7 2 0 0 8</u>	—	—	—	— — — — — — — —	—	—
	ALKALINITY TOTAL (mg/l as CaCO3) - Field	<u>0 0 4 3 1</u>	—	—	—	— — — — — — — —	—	—
	REDOX POTENTIAL (millivolt) - Field	<u>0 0 0 9 0</u>	—	—	—	— — — — — — — —	—	—
	pH (units) - Field	<u>0 0 4 0 0</u>	—	—	—	— — — — — — — —	—	—
	SPEC CONDUCTANCE (umhos) - Field	<u>0 0 0 9 4</u>	—	—	—	— — — — — — — —	—	—
X	TEMP OF WATER SAMPLE (°F) - Field	<u>0 0 0 1 1</u>	—	—	—	— — — <u>47</u> — — — —	<u>1</u>	<u>L</u>
		— — — — —	—	—	—	— — — — — — — —	—	—
		— — — — —	—	—	—	— — — — — — — —	—	—

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000 for each day the failure continues, a fine up to \$1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF LAND POLLUTION CONTROL

CHEMICAL ANALYSIS FORM

Page 1 of 2

RECORD
CODETRANS
CODE

L P C S M O 1

A

REPORT DUE DATE 36 M / D / Y 47

FEDERAL ID NUMBER I L D 0 4 2 0 7 5 3 3 3

SITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1

MONITOR POINT NUMBER 6 1 1 2

REGION C CO. DOUGLAS

(see Instructions)
DATE COLLECTED 0 1 / 1 4 / 8 5

TUSCOLA CABOT CORPORATION

IEPA LAB (x or Blank) 29 MW-12
(see Instructions)

LOCATION RESPONSIBLE PARTY

FOR IEPA USE ONLY

COMPLAINT NO.

BACKGROUND SAMPLE (X)

TIME COLLECTED 0 9 : 1 0
(24 HR CLOCK)UNABLE TO COLLECT SAMPLE
(see Instructions)MONITOR POINT SAMPLED BY 2
(see Instructions)OTHER (SPECIFY) *Peristaltic*

DATE RECEIVED 42 M / D / Y 47

SAMPLING PURPOSE CODE 48
(see Instructions)

TIME CARD

PROGRAM CODE 49 -- 52 & UNIT CODE 53

SAMPLE FIELD FILTERED - INORGANICS (X) 61 ORGANICS (X) 62

SAMPLE APPEARANCE

COLORLESS, CLEAR

COLLECTOR COMMENTS

SPECIAL INSTRUCTIONS TO LAB

COLLECTED BY

INITIALS

DIVISION OR COMPANY

TRANSPORTED BY

DIVISION OR COMPANY

LAB USE ONLY

LAB SAMPLE NO. LAB NAME *TEL Analytical* LAB ID NO. 0 0 0 5

DATE RECEIVED AND ADDRESS 460 S. Northwest Hwy

TIME RECEIVED Park Ridge, IL 60068

SAMPLE TEMP OKAY (Y/N) SAMPLE PROPERLY PRESERVED (Y/N) DATE COMPLETED FORWARD

LAB COMMENTS 150

SUPERVISOR SIGNATURE

RECORD CODE L P C S M O 2 TRANS CODE A

FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE		STORET NUMBER	RE S E R V E R S E	RE S E R V E R S E	< OR >	VALUE	REPORTING LEVEL	
							SCALE TOP 1 DIGIT	SCALE BOTTOM DIGIT
X	DEPTH TO WATER (ft. below LS)	7 2 0 1 9 30 34	35	36	37	38 39 40 41 42 43 44 45 46 47 48 49	2	R
	ELEVATION OF GW SURFACE (ft. ref MSL)	7 1 9 9 3						
	TOTAL WELL DEPTH (ft. below LS)	7 2 0 0 8						
	ALKALINITY TOTAL (mg/l as CaCO3) - Field	0 0 4 3 1						
	REDOX POTENTIAL (millivolt) - Field	0 0 0 9 0						
	pH (units) - Field	0 0 4 0 0						
	SPEC CONDUCTANCE (umhos) - Field	0 0 0 9 4						
X	TEMP OF WATER SAMPLE (°F) - Field	0 0 0 1 2				50	L	L

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1 2, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000 for each day the failure continues, a fine up to \$1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

TRANS CODE A

SITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1
8

MONITOR POINT NUMBER $\frac{G}{19} \frac{1}{-} \frac{1}{-} \frac{2}{22}$

PATRON C CO. DOUGLAS

DATE COLLECTED 01/14/85
23 M D Y 25

TUSCOLA	CABOT CORPORATION
LOCATION	RESPONSIBLE PARTY

IEPA LAB (x or Blank) 29 MW-12

[illegible]

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Page 1 of 2

RECORD CODE L P C S M 0 1
 TRANS CODE A

REPORT DUE DATE 36 M / 10 D / 74 Y

FEDERAL ID NUMBER I L D 0 4 2 0 7 5 3 3 3

SITE INVENTORY NUMBER 0 4 1 8 0 8 0 0 0 1

MONITOR POINT NUMBER 0 1 1 3

REGION C CO. DOUGLAS

DATE COLLECTED 0 1 / 1 4 / 8 5

TUSCOLA CABOT CORPORATION

IEPA LAB (x or Blank) 25 MW-13

LOCATION RESPONSIBLE PARTY

FOR IEPA USE ONLY

COMPLAINT NO. _____

DATE RECEIVED 42 M / 10 D / 74 Y

SAMPLING PURPOSE CODE 48

TIME CARD

PROGRAM CODE 49 & UNIT CODE 53

BACKGROUND SAMPLE (X) 54

TIME COLLECTED 0 9 : 2 6
 (24 HR CLOCK) 55 H 58 M

UNABLE TO COLLECT SAMPLE 59
 (see Instructions)

MONITOR POINT SAMPLED BY D
 (see Instructions)

OTHER (SPECIFY) _____

SAMPLE FIELD FILTERED - INORGANICS (X) 61 ORGANICS (X) 62

SAMPLE APPEARANCE C O L O R L E S S + T U R B I D

COLLECTOR COMMENTS D T W M E A S U R E D I L L
P R I O R T O W E L L P U R G E

SPECIAL INSTRUCTIONS TO LAB _____

COLLECTED BY J P INITIALS 143 DIVISION OR COMPANY Cabot Corp TRANSPORTED BY Emergency Air Freight DIVISION OR COMPANY

LAB USE ONLY

LAB SAMPLE NO. _____ LAB NAME Test Analytical LAB ID NO. 0 0 0 5

DATE RECEIVED _____ AND ADDRESS 460 S. Northwest Hwy

TIME RECEIVED _____ Park Ridge, IL 60068

SAMPLE TEMP OKAY (Y/N) _____ SAMPLE PROPERLY PRESERVED (Y/N) _____ DATE COMPLETED _____ FORWARD _____

LAB COMMENTS 150 _____

199

SUPERVISOR SIGNATURE _____

RECORD CODE L P C S M 0 2 TRANS CODE A

	FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER	RE MA IN S T R Y	R E P L I C A T E	< OR >	VALUE	REPORTING LEVEL	
							THIRD TOP BOX	LINE OF ORIGINAL
X	DEPTH TO WATER (ft. below LS)	<u>7 2 0 1 9</u>	<u>30</u>	<u>34</u>	<u>35</u>	<u>36</u>	<u>37</u>	<u>38</u>
	ELEVATION OF GW SURFACE (ft. ref MSL)	<u>7 1 9 9 3</u>						
	TOTAL WELL DEPTH (ft. below LS)	<u>7 2 0 0 8</u>						
	ALKALINITY TOTAL (mg/l as CaCO3) - Field	<u>0 0 4 3 1</u>						
	REDOX POTENTIAL (millivolt) - Field	<u>0 0 0 9 0</u>						
	pH (units) - Field	<u>0 0 4 0 0</u>						
	SPEC CONDUCTANCE (umho) - Field	<u>0 0 0 9 4</u>						
X	TEMP OF WATER SAMPLE (°F) - Field	<u>0 0 0 1 1</u>				<u>50</u>	<u>1</u>	<u>4</u>

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1.2, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000 for each day the failure continues, a fine up to \$1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

Concentrations of Organic Compounds Not Reported as HNC

	(ug/l)	<u>G106</u>	<u>G108</u>
Toluene		200	<1
1,1,2 Trichloroethane	↓	11	<1
Chloroform		30	126
Di n octyl phthalate		<10	22

No additional compounds detected at wells G101, G107, G109, G110, G111,
G112 & G113

JP 2/4/85